

C-2047

Fulflo® Abso-Mate™ Cartridges

Absolute, Cost-Effective Filtration From All Polypropylene Cartridges

Parker's Fulflo® Abso-Mate® Cartridges provide the ultimate in economical filtration for even the most critical process fluids. The proprietary melt blown media are rigidly controlled for reliable results time after time. Abso-Mate cartridges are produced without adhesives that can potentially contaminate fluids.

Abso-Mate Pleated Cartridges are available in 0.2µm, 0.45µm, 1µm, 2µm, 5µm, 10µm, 20µm, 40µm, and 70µm absolute rated pore sizes.

Benefits

- Absolute ratings for consistent and reliable performance (99.98%; $\beta = 5000$)
- Backwashable media, reduces replacement maintenance and cartridge disposal costs
- Abso-Mate cartridges are non-fiber releasing and contain minimal extractables
- All materials of construction are FDA listed as acceptable for potable and edible liquid contact according to CFR Title 21
- One-piece construction eliminates bypass concerns on multilength cartridges



- All-polypropylene construction offers wide chemical compatibility with most chemicals, acids, bases and solvents
- Fused construction and continuous lengths eliminate the need for adhesives and allow accurate bubble point integrity testing

Applications

- Membrane Prefilter
- Chemicals
- Catalyst Recovery
- Precious Metal Recovery
- Waste Water



ENGINEERING YOUR SUCCESS.

Fulflo® Abso-Mate™ Cartridges

Specifications

Materials of Construction:

- Type of Construction
 - integrally sealed, all-polypropylene
 - pleated media supported by all-polypropylene construction
- Filter Media
 - melt blown polypropylene microfiber
- Media Support Layers
 - Non-woven or mesh polypropylene
- Media Support Core
 - Heavy wall high strength polypropylene
- Media Support Cage and Thermally Welded End Caps
 - Molded polypropylene
- Seal Materials
 - Buna-N, EPR, Silicone, Viton, PFA
 - Encapsulated Viton*

Dimensions:

- Cartridge Outside Diameter: 2-11/16 in
- Cartridge Inside Diameter: DOE: 1-1/16 in SOE: 1-5/32 in

Maximum Recommended Operating Conditions:

- Temperature: 200°F (93°C)
- Change Out ΔP: 35 psi (2.4 bar)
- ΔP @ Ambient 70°F (21°C): 90 psi (6 bar)
- ΔP @ 200°F (93°C): 20 psi (1.4 bar)
- Flow Rate: 10 gpm (38 lpm) per 10 in length

Biological Safety/Product Purity:

- Meets USP XXI VI requirements for plastics
- All components FDA listed per CFR, Title 21
- Non-fiber releasing per FDA Part 210.3B (5) and (6)
- Non-photo sensitive

Filtration Ratings:

- 99.98% efficiency at 0.2, 0.45, 1, 2, 5, 10, 20, 40, & 70 μm pore sizes

Abso-Mate™ Flow Factors (psid/gpm @ 1 cks)

Rating Flow (μm)	Factor
0.20	3.100
0.45	1.000
1	0.750
2	0.300
5	0.072
10	0.031
20	0.021
40	0.012
70	0.008

Abso-Mate™ Length Factors

Length (in) Factor	
9	1.0
10	1.0
19	2.0
20	2.0
29	3.0
30	3.0
39	4.0
40	4.0

Flow Rate and Pressure Drop Formulas

$$\text{Flow Rate (gpm)} = \frac{\text{Clean DP} \times \text{Length Factor}}{\text{Viscosity} \times \text{Flow Factor}}$$

$$\text{Clean DP} = \frac{\text{Flow Rate} \times \text{Viscosity} \times \text{Flow Factor}}{\text{Length Factor}}$$

Beta Ratio (β) =

$$\frac{\text{Upstream Particle Count @ Specified Particle Size and Larger}}{\text{Downstream Particle Count @ Specified Particle Size and Larger}}$$

$$\text{Percent Removal Efficiency} = \left(\frac{\beta - 1}{\beta} \right) 100$$

Performance determined per ASTM F-795-88. Single-Pass Test using AC test dust in water at a flow rate of 3.5 gpm per 10 in (13.2 lpm per 254 mm) cartridge.

Notes:

- Clean ΔP is PSI differential at start.
- Viscosity is centistokes. Use Conversion Tables for other units.
- Flow Factor is DP/GPM at 1 cks for 10 in (or single).
- Length Factors convert flow or DP from 10 in (single length) to required cartridge length.

Liquid Particle Retention Ratings (μm) @ Removal Efficiency of:

Cartridge		β=5000	β=1000	β=100	β=50	β=20
		Absolute	99.9%	99%	98%	95%
A	PAB002	0.2	<0.2	<0.2	<0.2	<0.1
B	PAB004	0.45	0.4	0.2	<0.2	<0.1
C	PAB010	1	0.8	0.4	<0.2	<0.1
D	PAB020	2	1.9	0.8	<0.2	<0.1
E	PAB050	5	3.8	1.4	0.4	0.15
F	PAB100	10	7	2	0.5	0.25
G	PAB200	20	13	4	1.8	0.35
H	PAB400	40	22	7	3.2	0.8
J	PAB700	70	52	22	15	5.5

Ordering Information

Rating (μm)	Nominal Length Code in mm	Support Construction	Seal Material	End Cap Configuration	Special Options
002 = 0.2	9 9-5/8 244	F = Glass-filled Polypropylene (core only)	A = Polypropylene Foam (DOE gasket only)	AR = 020 O-Ring/Recessed cap	B = Bubble-Point Test
004 = 0.45	10 9-13/16 249	G = 304 Stainless Steel (core only)	E = EPR	DO = Double open end (DOE)	R = DI Water Rinse (5 minutes)
010 = 1	19 19-5/8 498	N = Natural Polypropylene (All support components)	N = Buna-N	DX = Double open end/extended core	Z6 = Individual Poly Bag only
020 = 2	20 19-15/16 506	X = Coreless Cartridge	S = Silicone	LL = 120 O-Ring/Recessed cap	
050 = 5	29 29-1/4 743		T = PFA Encapsulated Viton* (222, 226, O-ring only)	LR = 120 O-Ring/Recessed cap	
100 = 10	30 30-1/16 764		V = Viton*	OB = Std. Open End/Polyprop Spring Closed End	
200 = 20	39 39 991		X = No Seal Material	PR = 213 O-Ring/Recessed cap	
400 = 40	40 40 1016			SC = 226 O-Ring/Fin	
700 = 70				SF = 226 O-Ring/Fin	
				SSC = SS Inserted 226 O-ring/Closed	
				SSF = SS Inserted 226 O-ring/Fin	
				TC = 222 O-Ring/Flat	
				TF = 222 O-Ring/Fin	
				STC = SS Inserted 222 O-ring/Closed	
				STF = SS Inserted 222 O-ring/Fin	
				TX = 222 O-ring/Flex Fin	
				XB = Ext. Core open End/ Polyprop Spring Closed End	

Specifications are subject to change without notification.
*Viton is a registered trademark of E.I. DuPont de Nemours & Co., Inc.

